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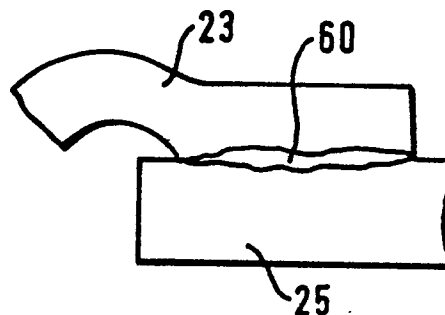
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⑤④ **Semiconductor device having a bonding wire and method for manufacturing it.**

⑤⑦ A semiconductor device in which an end of an aluminium bonding wire (23) is connected to a lead electrode (25) of copper or a copper alloy in a manner such that the thickness of a reaction layer (60) is 0.2  $\mu$  (micron) or more. In manufacture, heat treatment is effected to bring the reaction layer (60) to the desired thickness. The semiconductor device displays excellent electrical characteristics in high temperature conditions or in high temperature high humidity conditions.





European Patent  
Office

# EUROPEAN SEARCH REPORT

0178170

Application number

EP 85 30 7236

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	PATENT ABSTRACTS OF JAPAN, vol. 6, no. 72 (E-105)[950], 7th May 1982; & JP - A - 57 13747 (MITSUBISHI) 23-01-1982	1,2,5,6	H 01 L 23/48 H 01 L 21/60 B 23 K 20/22
A	--- EP-A-0 028 763 (HITACHI) * claims 6, 7 *	1,2	
A	--- EP-A-0 116 844 (OLIN CORP.) * page 5, line 30 - page 6, line 28 *	1,2	
A	--- PATENT ABSTRACTS OF JAPAN, vol. 6, no. 192 (E-85)[864], 8th December 1981; & JP - A - 56 114 340 (MITSUBISHI) 08-09-1981 -----	9	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)  B 23 K 20/22 H 01 L 21/60 H 01 L 23/48
Place of search BERLIN		Date of completion of the search 07-11-1986	Examiner GIBBS C.S.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons  & : member of the same patent family, corresponding document	